2000-6000MHz/20Watt/Module

Model Number: OC-PA2-6K20W

The model OC-PA2-6K20W is a multi-octave high power amplifier operating between 2000 MHz and 6000 MHz and offering a wide dynamic Range with 20 Watts typical saturated power. The employment of (GaN) advanced high power devices in manufacturing ensures this module exceptional power performance, long term reliability and high efficiency. It is ideal for broadband high power S/C Band applications.

FEATURES:

- Broadband & High power
- High Efficiency
- Great Linearity
- Small Size & Light Weight
- Low Distortion

ELECTRICAL SPECIFICATIONS @ +28.0VDC, 25°C, 50Ω

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	2000		6000	MHz
RF Output Power	P_{out}		20		Watt
Power Gain	Gp		43		dB
Power Gain Flatness	Δ Gp		±1.5		dB
Input Return Loss	S_{11}			-10	dB
Harmonics @10W	H		-15		dBc
Spurious Signals	Spur		-60		dBc
Switch On/Off@10-90% Time	TON/OFF		2	4	μS
In/Output Impedance	Impedance		50		Ω
Operating Voltage	VDC	24	28	30	Volt
Power add efficiency	Eff		30		%
DC Current @20W	IDD		3		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	160x 100 x 25	mm	Maximum
Weight	1.2[2.64]	kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	SMA, Female		
DC Interface Connector	D-sub 9-Pin, Male		
Cooling	External Heatsink Required (Not Supplied)		

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

Parameter	Minimum	Typical	Maximum	Units	Notes
Operating Temperature	-20		60	°C	
Non-operating Temperature	-25		65	°C	Storage
Relative Humidity（non-condensing）			95	%	

ABSOLUTE MAXIMUM RATING

Input RF drive level without damage	+10 dBm (Max)
Load VSWR @ POUT =10W	∞ @ all load phase & amplitude for duration of 1 minutes; 3:1 @ all load phase & amplitude continuous
Over Temperature	85°C @ heatsink [restored @ 60°C]

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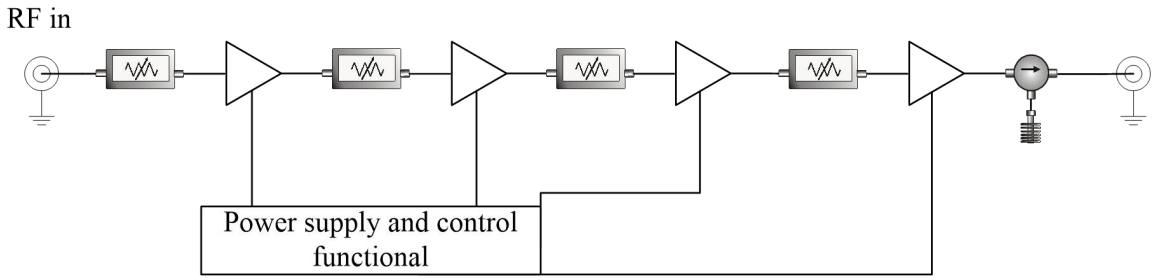
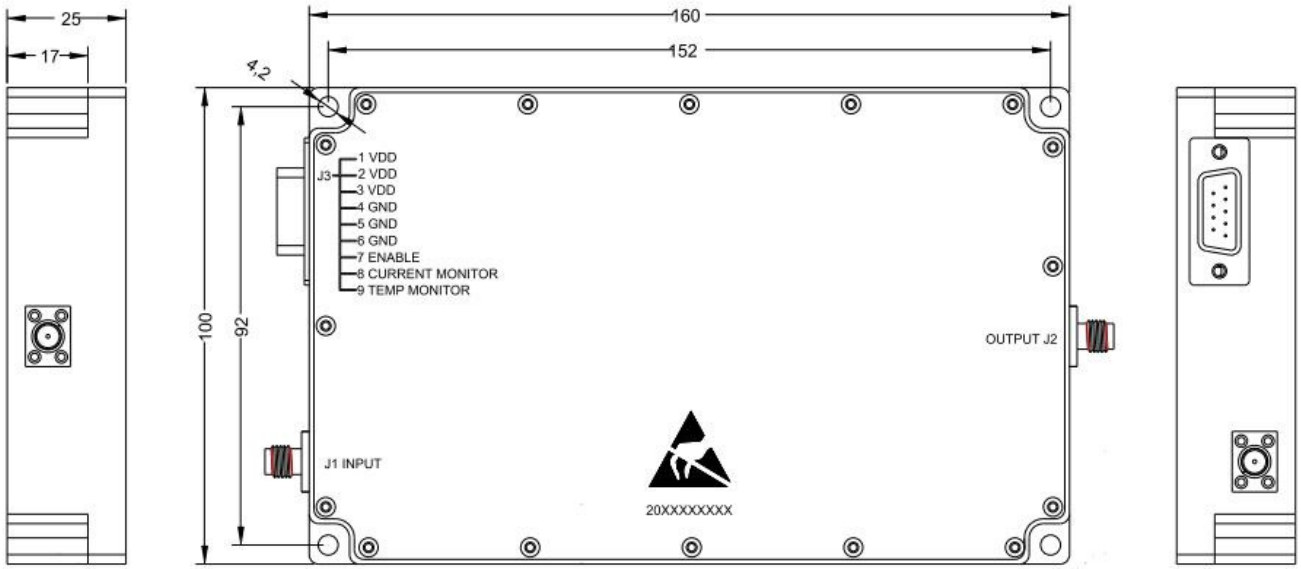
DC INTERFACE CONNECTOR

Pin #	Description	Specifications
1,2,3	VDD	28±2VDC
4,5,6	GND	Ground
7	ENABLE	Amplifier Enable: TTL Logic High (3.3V) (Internally Pulled-Low)
8	CURRENT MONITOR	Analog voltage relative to IDD @100mV per Ampere
9	TEMP MONITOR	Analog voltage relative to Module's Temperature @10 mV/°C

Functional Diagram



OUTLINE DRAWING (All dimensions in mm)



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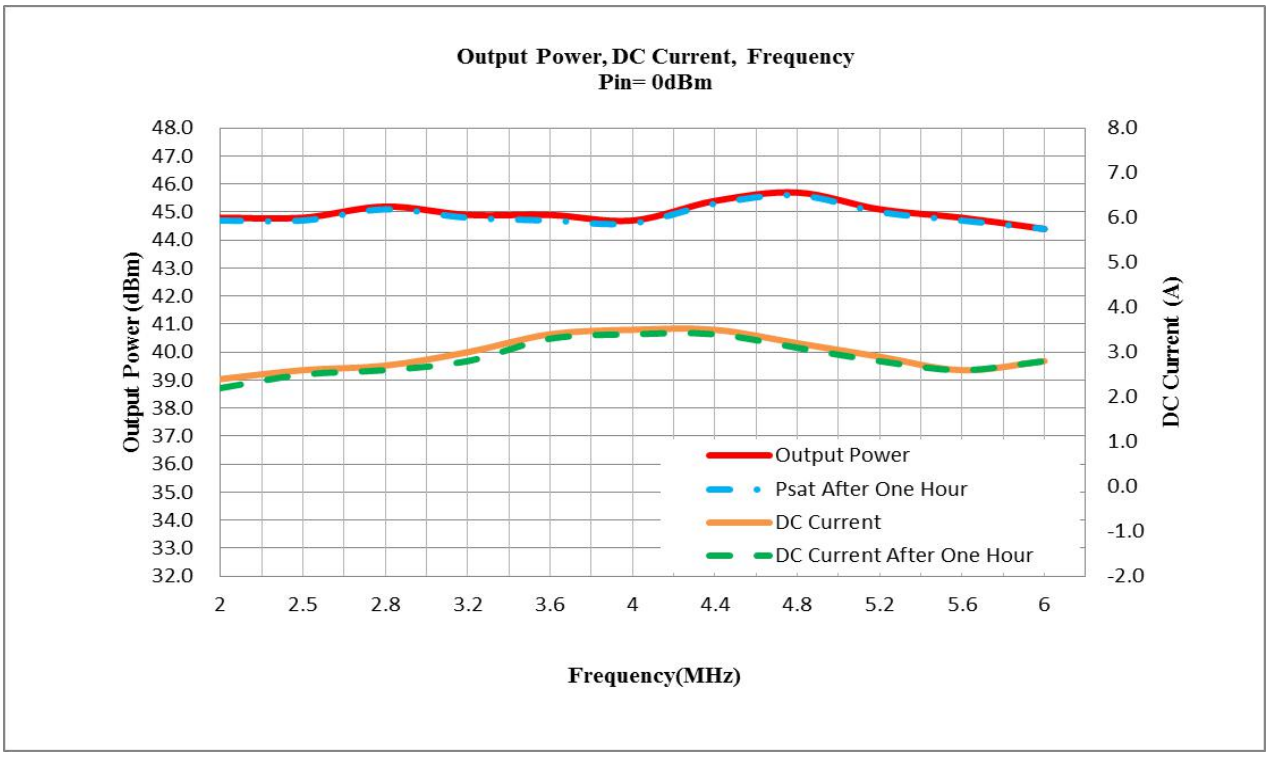
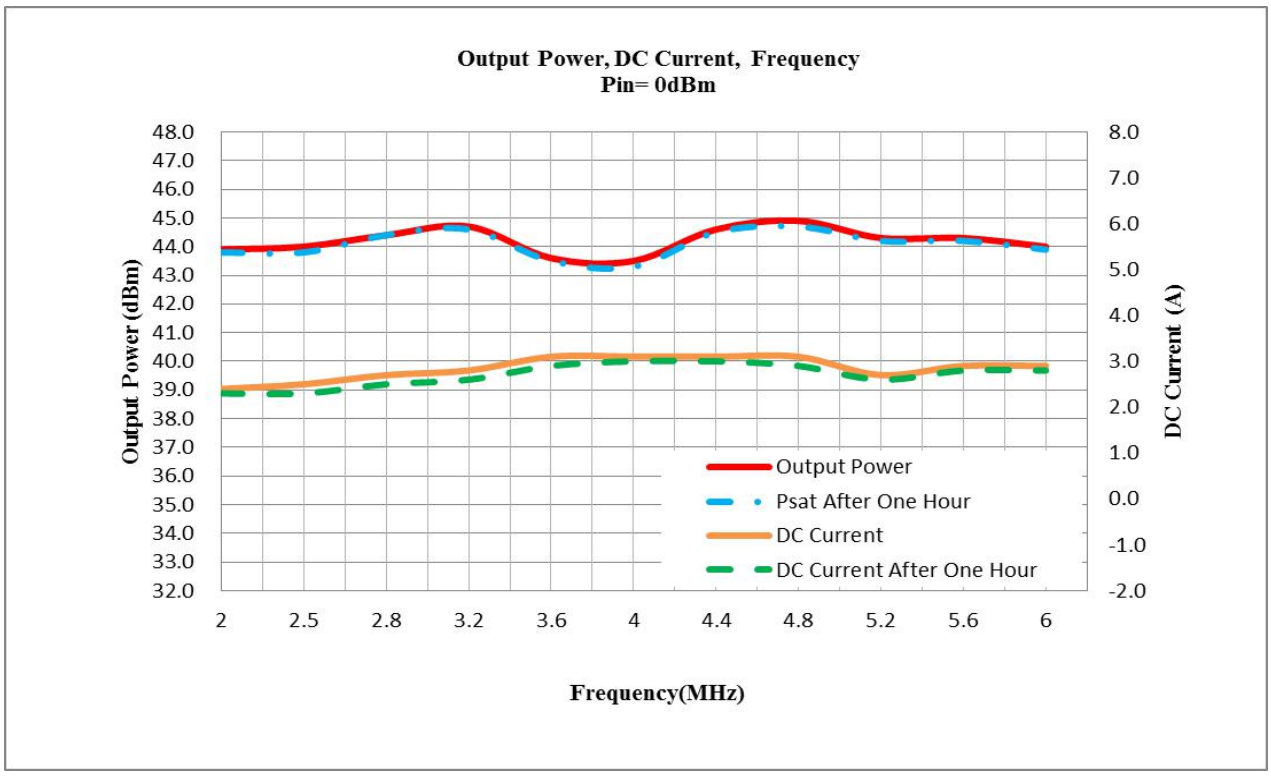
TYPICAL PERFORMANCE PLOTS (For reference only

Graph1: Output Power (Low temp. -20±3℃)



Graph2: Output Power (High temp. +60±3℃)



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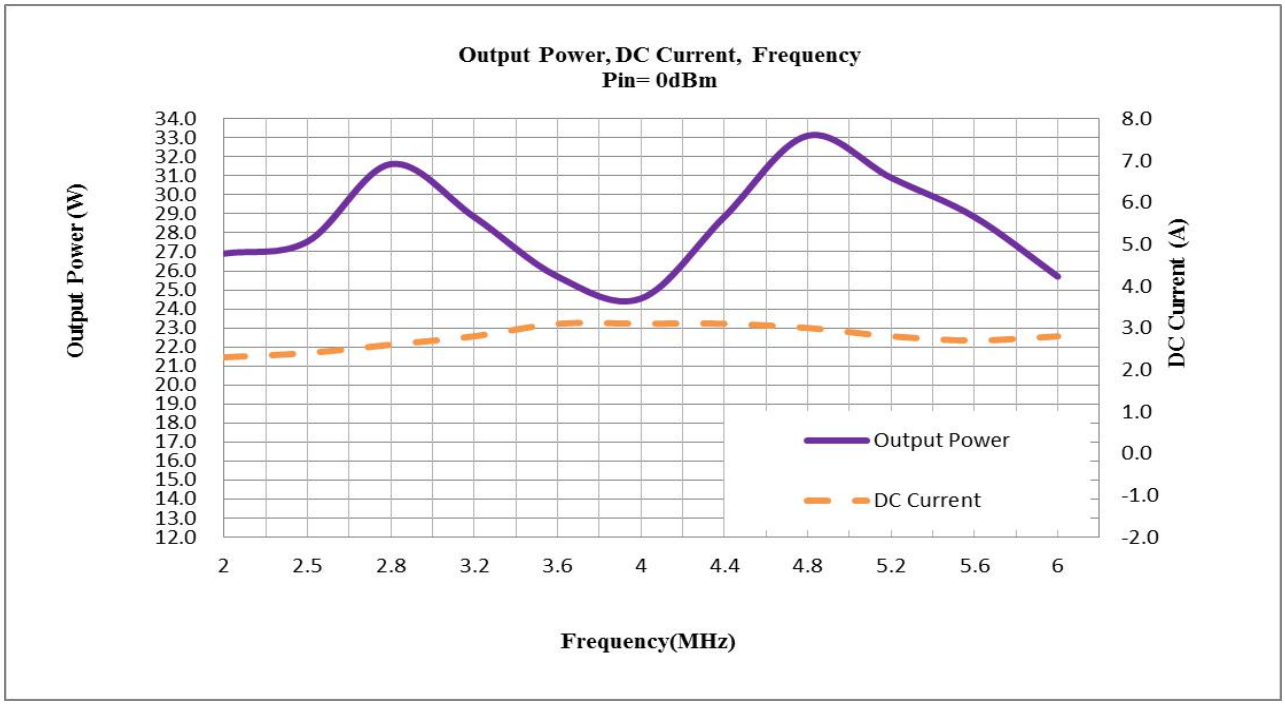
Graph3: Output Power (Normal temp. +25±3℃)



Power Gain:

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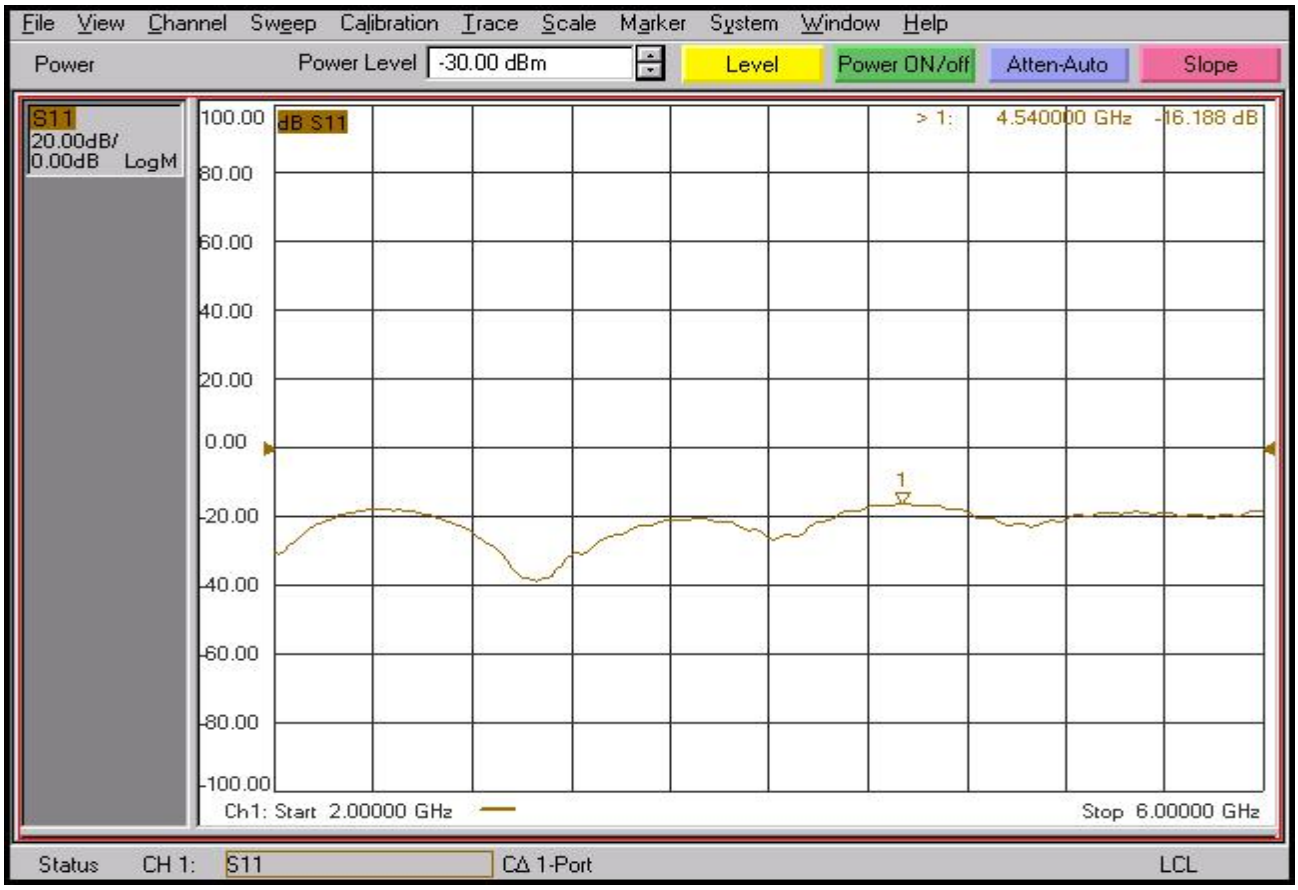
Input Return Loss：



Note: Adequate heat sink required.